Press Release

Rigaku NEX QC EDXRF for Analysis of Kaolin Clay

Austin, TX – May 22, 2012. Applied Rigaku Technologies, Inc. today announced a new empirical method for the elemental analysis of titanium and iron in kaolin clay. Application Note #1187 demonstrates the effectiveness of the *filtered direct excitation* design of the Rigaku NEX QC energy dispersive X-ray fluorescence (EDXRF) analyzer for analysis during the QA/QC process in the production of clay-based products.

Kaolin clay has a broad range of uses, from pottery and ceramics to coated paper and as an additive in toothpastes and cosmetics. It is also widely used in the production of paper. The titanium and iron present affect the color and physical properties of the clay, and so must be closely monitored throughout QA/QC processes to ensure proper ratios for each given product type.

For this application the samples were ground to <200 mesh (<75um particle size). Typically, a shatterbox or a ball mixer/mill is used to grind samples. To eliminate any potential contamination bias from the grinding surfaces, iron or steel grinding accessories should not be used. For optimum grinding, it is recommended to use zirconium agate, tungsten carbide, or other suitable hard surface grinding equipment. For this study, 3g of powder was placed into a standard 32mm XRF sample cup and tap-packed before analysis.

The results show that the Rigaku NEX QC analyzer provides exceptional performance for the measurement of titanium and iron in kaolin clay and offers a simple and fast means of analysis during the QA/QC process, as well as for screening at the quarry.

A copy of this report may be requested at: http://www.rigakuedxrf.com/edxrf/app-notes.html?id=1187_AppNote

About Rigaku

Since its inception in Japan in 1951, Rigaku has been at the forefront of analytical and industrial instrumentation technology. Rigaku and its subsidiaries form a global group focused on life sciences and general purpose analytical instrumentation. With hundreds of major innovations to its credit, Rigaku and its subsidiary companies are world leaders in the fields of small molecule and protein crystallography, X-ray spectrometry and diffraction, X-ray optics, as well as semiconductor metrology. Rigaku employs over 1,100 people globally and its products are in use in more than 70 countries – supporting research, development, production control and quality assurance activities. Throughout the world, Rigaku continuously promotes partnerships, dialog, and innovation within the global scientific and industrial community.

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